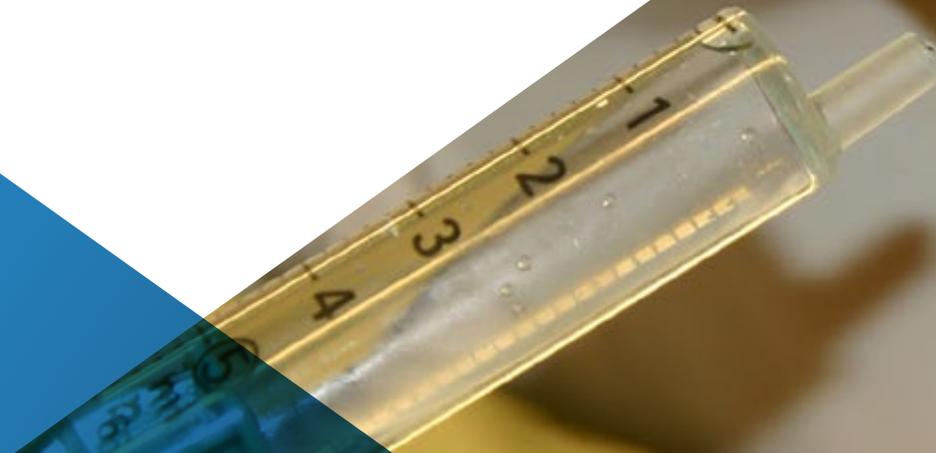


Postgraduate Certificate Critical Care and Regional Anesthesia





Postgraduate Certificate Critical Care and Regional Anesthesia

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/postgraduate-certificate/critical-care-regional-anesthesia

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01

Introduction

The increase in demand for professionals specialized in the management of critically ill patients and regional anesthesia is evident, especially due to the increasing complexity of surgical interventions and the aging population. TECH has designed a program that addresses this need, offering a complete update in the methods of care for critically ill patients and the application of regional anesthetic techniques. This 100% online degree is based on the innovative pedagogical methodology of Relearning, allowing students to adapt learning to their personal pace and style. The flexibility to organize academic resources facilitates access to high quality education, contributing to the continuous improvement of professionals in the health field.





“

Thanks to this Postgraduate Certificate you will master the latest techniques in critical care and regional anesthesia, and enhance your skills to face the challenges of patient care in complex situations of patient care in complex situations”

In today's medical field, the management of critically ill patients and the implementation of regional anesthesia in surgical procedures are highly relevant issues. Technological advances and the increasing complexity of surgeries, added to the aging population and the incidence of chronic diseases, require highly trained professionals in these areas. In addition, efficient and personalized preoperative, intraoperative and postoperative care is crucial to ensure the safety and well-being of high-risk patients. Therefore, constant updating in Critical Care and Regional Anesthesia is essential for healthcare professionals to improve their skills and competencies.

In this sense, TECH has designed the Postgraduate Certificate in Critical Care and Regional Anesthesia, which provides students with a solid and updated theoretical and practical basis in the management of critically ill patients and the implementation of regional anesthetic techniques. The program includes the study of the fundamentals of regional anesthesia, identification and treatment of complications, monitoring and evaluation of critically ill patients, ultrasound-guided techniques in Critical Care Units, as well as the most advanced methods of central line cannulation.

With this academic program, health professionals, especially those who work more frequently in the operating room, will have a flexible and state-of-the-art access to the latest postulates in the anesthetic approach to critical patients, being able to apply with certainty the first step of the surgical procedure in an effective way.

This Postgraduate Certificate is developed in a 100% online environment, which allows students to obtain a high quality education from anywhere and adapt their learning to their individual needs. The Relearning pedagogical methodology used in the degree combines elements of self-directed learning and practical activities to ensure an enriching and effective educational experience.

This **Postgraduate Certificate in Critical Care and Regional Anesthesia** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of case studies presented by experts in Critical Care and Regional Anesthesia
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



Broaden your professional horizons with our Relearning pedagogical methodology, which provides you with a learning experience adapted to your personal pace and style to your pace and personal style”

“

Immerse yourself in an academic program that addresses the most relevant topics in critical patient care and the application of regional anesthesia, from pathophysiology to specific techniques in various clinical scenarios”

Get up to date on the latest advances in the management of critically ill patients in only 180 hours of theoretical and practical content.

Guide your career towards professional success and specialize in Critical Care and Regional Anesthesia.

The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.



02 Objectives

This Postgraduate Certificate has been created with the purpose of updating health professionals in these essential areas, enhancing their skills and competencies in the management of critically ill patients and the application of regional anesthesia. This updating perspective addresses highly relevant topics, such as the proper management of patients with multiple comorbidities, the prevention of complications and the efficient use of regional anesthetic techniques. In this way, students will be better prepared to face emergency situations, minimize risks and errors in their medical their medical practice, and provide more effective and safe care for patients requiring high-risk surgical procedures.





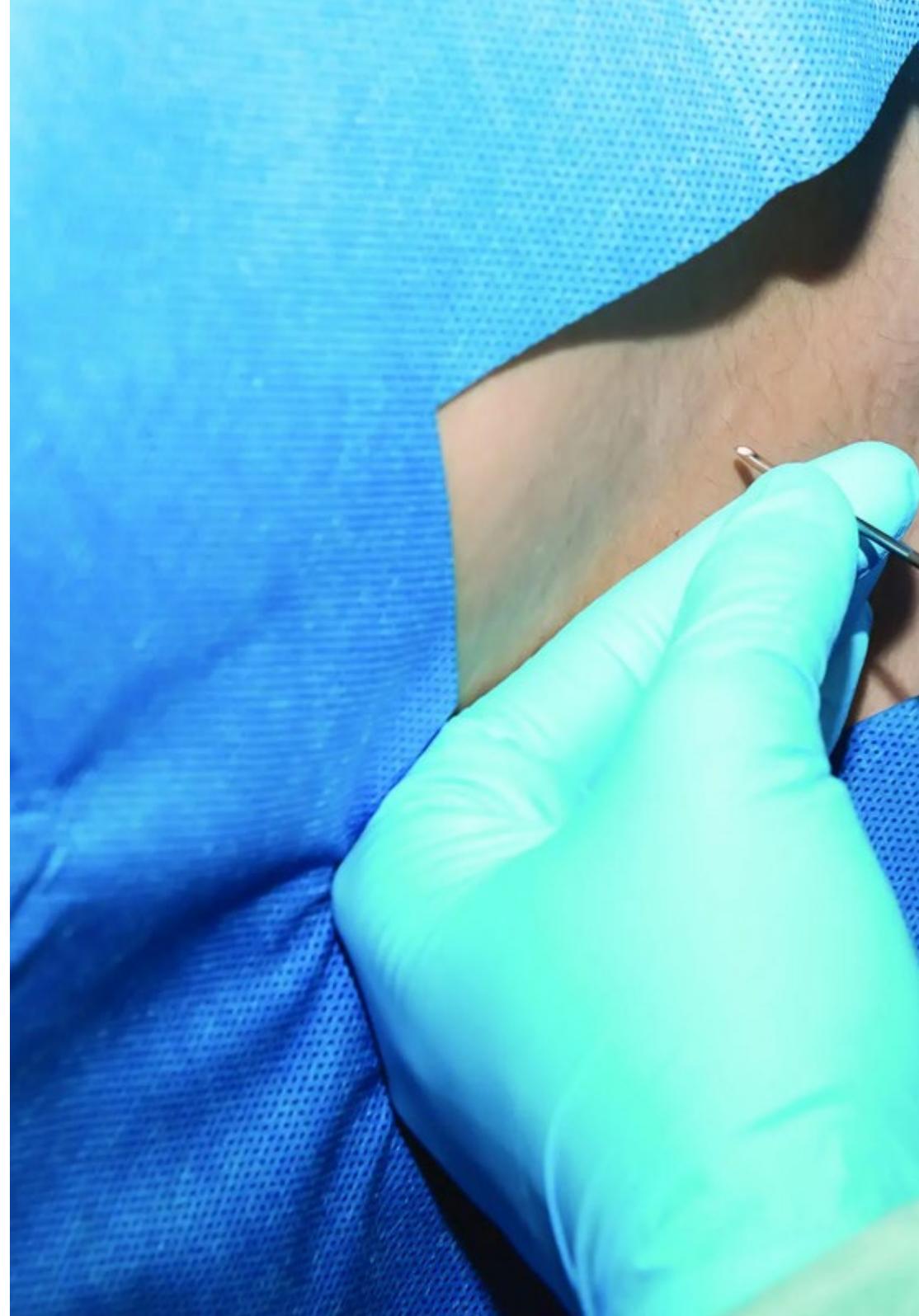
“

Don't miss the opportunity to improve your skills and make a difference in your career, while enjoying the flexibility and accessibility of a 100% online course”



General Objectives

- ♦ Learn in depth the fundamentals that allow us to perform procedures with regional anesthesia
- ♦ Familiarize with the anatomy, physiology and pharmacology applied to regional anesthesia
- ♦ Specifically study the types of central blocks, as well as their indications, contraindications, technical aspects and complications
- ♦ Specifically study the types of peripheral blocks, as well as their indications, contraindications, technical aspects and complications
- ♦ Review limb, head, neck, thoracic and abdominal blocks, as well as those useful for difficult airway management
- ♦ Review the basic fundamentals of electrostimulation and ultrasound and apply them to the performance of blocks
- ♦ Being familiar with the equipment necessary to perform the blocks
- ♦ Know in depth the current clinical practice guidelines for the preoperative management of patients requiring regional anesthesia
- ♦ List the particularities of outpatient surgery requiring regional anesthesia. Specifically study the types of Peripheral blocks, as well as their indications, contraindications, technical aspects and complications





Specific Objectives

- Review the peculiarities of the critically ill patient and their specific risks
- Know in depth the options for assessment and control of pain in the critically ill patient
- Analyze the potential uses of locoregional analgesia in the critically ill patient
- Delve into the indications of Locoregional Analgesia/Anesthesia in specific situations such as burned, polytraumatized or amputated patients
- Learn in depth the importance of locoregional techniques in reconstructive surgery with flaps



Achieve your goals in the professional field of medicine thanks to this complete Postgraduate Certificate”

03

Course Management

With the purpose of offering the best and highest quality education, this Postgraduate Certificate will be directed by a teaching staff of professionals remarkably prepared in the area of Critical Care and Regional Anesthesia and who, through their extensive experience, will transmit the most updated information to the students. Thus, the graduate will receive a thorough instruction, which will allow them to implement innovative strategies to improve the quality of patient care in critical environments and optimize the use of resources in the surgical setting.



“

Update your knowledge in an area of great demand with the help of a highly highly qualified teaching staff, with extensive experience in the experience in the field of critical care and regional anesthesia”

Management



Dr. Burgueño González, Mª Dolores

- ◆ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ◆ Anesthesia Coordinator of Cantoblanco Hospital
- ◆ Responsible for Surgical Patient Safety at Cantoblanco Hospital
- ◆ Specialist Physician at the Virgen del Mar Hospital
- ◆ MIR in Anesthesiology, Resuscitation and Pain Therapy at the University Hospital La Paz
- ◆ Master PROANES: Official Updating Program in Anesthesiology, Resuscitation and Pain Therapy by the Catholic University of Valencia
- ◆ Postgraduate Diploma in Airway Management by the Catholic University of Valencia

Professors

Dr. Vallejo Sanz, Irene

- ◆ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ◆ Collaborator in Clinical Simulation workshops
- ◆ MIR in Anesthesiology, Resuscitation and Pain Therapy
- ◆ European Diploma of Anaesthesiology and Intensive Care, EDAIC part I
- ◆ Member of the Illustrious Official College of Physicians of Madrid
- ◆ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)

Dr. Sancho De Ávila, Azahara

- ◆ Free practice anesthesiologist at La Zarzuela Hospital
- ◆ FEA of Anesthesiology and Resuscitation at the University Hospital of La Paz
- ◆ Free practice anesthesiologist at the University Hospital of La Luz
- ◆ Free practice anesthesiologist at Nuestra Señora del Rosario Hospital
- ◆ Doctor in Medicine and Surgery from the University of La Laguna
- ◆ Specialist in Anesthesiology, Resuscitation and Pain Therapy by MIR examination at the University Hospital Nuestra Señora de la Candelaria

Dr. Canser Cuenca, Enrique

- ♦ FEA of Anesthesiology and Resuscitation at El Escorial Hospital
- ♦ Specialist in Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ Residency in the Department of Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ PhD in "Neurosciences: Morphofunctional organization of the nervous system"
- ♦ Master in Pathophysiology and Treatment of Pain by the Autonomous University of Barcelona
- ♦ Master's Degree in Palliative Medicine and Supportive Care of the Cancer Patient

Dr. Zurita Copoví, Sergio

- ♦ FEA of Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ Specialist Physician at the Virgen del Mar Hospital
- ♦ Resident Tutor at the University Hospital La Paz
- ♦ Clinical teaching collaborator at the Autonomous University of Madrid
- ♦ Master's Degree in Clinical Management, Medical and Health Care Management
- ♦ Master in Patient Management
- ♦ European Postgraduate Certificate in Anesthesia and Critical Care
- ♦ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)

Dr. Martín Martín, Almudena

- ♦ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ♦ Clinical Teaching Collaborator of the University Hospital La Paz
- ♦ MIR in Anesthesiology, Resuscitation and Pain Therapy at the University Hospital La Paz
- ♦ Master of Continuing Education in "Patient Management"

Dr. Rodríguez Roca, María Cristina

- ♦ FEA of Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ Teaching and research experience in several university centers
- ♦ PhD from the Autonomous University of Madrid
- ♦ European Postgraduate Certificate in Anesthesia and Critical Care (EDAIC)
- ♦ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)
- ♦ Member of the working group of Chronic Pain of the Spanish Society of Anesthesiology and Resuscitation

Dr. Salgado Aranda, Patricia

- ♦ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ♦ Teaching and research experience
- ♦ Clinical Teaching Collaborator of the University Hospital La Paz
- ♦ PhD from the Autonomous University of Madrid
- ♦ Degree in Medicine from the University of Alcalá, Spain
- ♦ Master's Degree in Infectious Diseases in Intensive Care
- ♦ Member of the Illustrious Official College of Physicians of Madrid

04

Structure and Content

The Postgraduate Certificate in Critical Care and Regional Anesthesia covers essential aspects for the integral management of the critical patient, from the pathophysiology and peculiarities of these patients to specific locoregional techniques in different situations, such as polytraumatized patients, amputees, burns and in the context of microvascularized flaps. This complete study program aims to offer health professionals an updated and solid training in the care of critically ill patients and the application of regional anesthesia in different clinical scenarios. All this in a 100% online format that will allow students to combine their personal and professional activities with their learning.





“

This curriculum will provide you with the most specific and updated information to deepen your knowledge of the most relevant aspects of Regional Anesthesia. Enroll now”

Module 1. Critical Care and Regional Anesthesia

- 1.1. Peculiarities of Critical Patients
 - 1.1.1. Pathophysiology of Critical Patients
 - 1.1.2. Special Considerations for the Locoregional Techniques
- 1.2. Pain Assessment in the Critical Patients
 - 1.2.1. Introduction
 - 1.2.2. Assessment of Pain in Conscious and/or Communicative Patient
 - 1.2.3. Assessment of Pain in Unconscious and/or Non-Communicative Patients
- 1.3. Pain Management in Critical Care Units
 - 1.3.1. Origin of Pain
 - 1.3.2. Impact of Pain in the Critically Ill Patient
 - 1.3.3. Therapeutic Options for Pain
- 1.4. Locoregional Technique in Critical Care Units
 - 1.4.1. Upper Limb Blocks
 - 1.4.2. Lower Limb Blocks
 - 1.4.3. Central Blocks
 - 1.4.4. Thoracoabdominal Wall Block
- 1.5. The Polytraumatized Patient
 - 1.5.1. Etiopathogenesis
 - 1.5.2. Characteristics of the Polytraumatized Patient
 - 1.5.3. Locoregional Techniques in the Polytraumatized Patient
- 1.6. Amputee Patient and Phantom Limb
 - 1.6.1. Amputee Patient. Incidence and Characteristics
 - 1.6.2. Phantom Limb. Incidence and Characteristics
 - 1.6.3. Prevention and Management of Phantom Limb
- 1.7. Burn patient
 - 1.7.1. Etiopathogenesis
 - 1.7.2. Characteristics of the Burn Patient
 - 1.7.3. Locoregional Techniques in the Burned Patient
- 1.8. Regional Anesthesia and Microvascularized Flap
 - 1.8.1. The Flap
 - 1.8.2. Physiological Considerations
 - 1.8.3. Anesthetic Approach
- 1.9. Ultrasound in Critical Care Units
 - 1.9.1. Utility of Ultrasound in Critical Care Units
 - 1.9.2. Ultrasound-Guided Techniques in Critical Care Units
- 1.10. Central Line Canalization
 - 1.10.1. Internal Jugular Vein Canalization
 - 1.10.2. Subclavian Vein Canalization
 - 1.10.3. Femoral Vein Canalization
 - 1.10.4. Central line Canalization by Peripheral Access
 - 1.10.5. Others



A program designed in detail for you, with a complete multimedia material and the possibility of accessing it from any device with internet connection”



05 Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.





“

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.

“

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

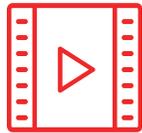
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

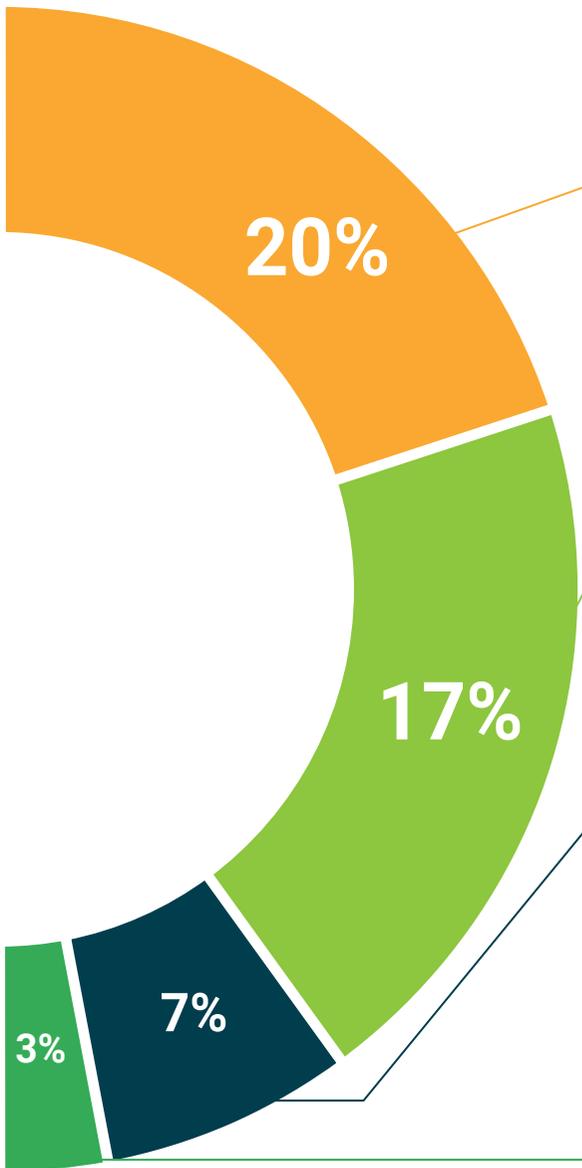
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06 Certificate

The Postgraduate Certificate in Critical Care and Regional Anesthesia guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



“

Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”

This program will allow you to obtain your **Postgraduate Certificate in Critical Care and Regional Anesthesia** endorsed by **TECH Global University**, the world's largest online university.

TECH Global University is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Critical Care and Regional Anesthesia**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present
development languages
virtual classroom



Postgraduate Certificate
Critical Care and
Regional Anesthesia

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
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- » Exams: online

Postgraduate Certificate
Critical Care and
Regional Anesthesia